

Serial No. 09/125,958

Filed: August 26, 1998

REMARKS

Claims 5-8, 11-17, 25, 26, 37, 38, 40-48, 50-57 and 59-64 are pending in the present application. Claims 7, 8, 13-17, 25, 26, 37, 38, 40-48, 50-57 and 59-64 have been allowed. Further, claims 5, 6, 11 and 12 presently stand rejected based on the prior art of record.

Claims 5 and 6 have been rejected under 35 U.S.C. §102(e) as being anticipated by Fujita et al. (U.S. Patent No. 5,412,659). Claim 5 discloses a transmitter for adding a frame number to each frame for transmission, which is illustrated in Figure 27 of the present application. The transmitter gives an inherent number to a frame before transmission of the frame. Each of the numbers is determined on the basis of an expected delay of each frame, and the expected delay may differ according to, for example, a data type to be transmitted by the frame.

In particular, a downlink frame adder 34-4 adds a frame number to a frame which has a frame number generated on the basis of a reference clock of a mobile station, the clock being generated in a MFC-M31 as shown in Figure 2. The added frame number is determined on the basis of an estimated delay of that particular frame. As such, it is therefore important to note that in a case where differing frames have differing communication delays, for example, where frames accommodating voice data and frames accommodating text data are mixed on one communication channel, synchronization of frames is ensured.

In contrast, Fujita et al. discloses a system for precisely counting occurrence of interference in distinction from collision in a system where a message is exchanged between a base station and mobile stations using a frame. The frame status memory 108 for storing information on a status of a frame is provided in the base station. The collision memory 210 is provided in each mobile station. In this system, when collision is detected in a frame, an identification of the frame is stored in the memory to retransmit the frame. Also, Fujita et al. discloses the out-of-sync detector 107 for detecting the out-of-sync status of a frame.

Fujita et al. discloses only a technique for managing identification (a frame number) of a frame where collision occurs. Fujita et al. clearly does not disclose giving a number to a frame to be transmitted, where the number is determined on the basis of an expected delay time of the frame. It is readily apparent that neither the frame status memory 108 nor the collision memory 210 discloses the important feature of the frame number adder of claim 5, and thus Fujita et al. does not disclose each and every element of the claimed invention. As such, Applicants respectfully request the

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Examiner to withdraw the rejection of independent claim 5 as Fujita et al. does not anticipate the claimed invention.

As set forth above, claim 6 has also been rejected under 35 U.S.C. §102(e) as being anticipated by Fujita et al. Claim 6 includes the limitations of a receiver for extracting from a buffer, in which received frames are stored, a frame having a frame number which is identical to a number obtained on the basis of an expected time delay of that frame, as illustrated in Figure 28 of the present application. In particular, an uplink frame FN adder 34-4 extracts, from the buffer in which received frames are stored, a frame having a frame number, obtained by adjusting, in an uplink frame extraction controller 34-8, a frame number on the basis of an expected delay of the frame. The adjusted frame number is determined on the basis of a reference clock of the base station, the clock being generated in a MFC-M31 as shown in Figure 2. It is therefore important to note that in a case where differing frames have differing communication delays, synchronization of frames is ensured, as in claim 5.

The time slot detector 202 disclosed in Fujita receives a message. However, it clearly does not disclose that the time-slot detector 202 extracts from a buffer, in which frames are stored, a frame having a frame number which is identical to a number obtained on the basis of an expected time delay of the frame. As set forth above, it is readily apparent that the time-slot detector 202 disclosed in Fujita et al. does not have the important feature of the frame synchronizer contained in claim 6. To that end, Fujita et al. clearly does not anticipate independent claim 6.

Claims 11 and 12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Fujita et al. in view of Bellec (U.S. Patent No. 5,838,746). Claim 11 is characterized in that, referring to Figure 36 of the present application, in a case where, after adding to each frame, a frame number determined on the basis of an expected delay of that frame and transmitting it by a transmitter, an actual delay of the frame differs from the expected delay of the frame and where consequently, a receiver cannot extract the frame, the frame number to be added to the frame is adjusted. In other words, a frame number is adjusted dynamically, that is, adaptively to fluctuations of communication delays.

Bellec discloses an estimation method of a DC component of a received signal to reduce communication delay of a frame exchanged between a terminal and a station. Bellec clearly does not disclose, teach or suggest a dynamic adjustment of a frame number. Further, as described above, neither the frame status memory 108 nor the collision memory 210 of Fujita et al. has the

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important feature of the frame number adder of claim 11. Thus, Fujita et al. does not disclose, teach or suggest the important feature of the frame number adder of claim 11. To that end, Fujita et al. and Bellec clearly do not render claim 11 obvious and as such, Applicants respectfully request the Examiner to withdraw the rejection of claim 11.

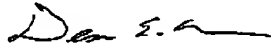
As set forth above, claim 12 has also been rejected under 35 U.S.C. § 103(a) as being obvious based on Fujita et al. in view of Bellec. As such, Applicants respectfully request the Examiner to withdraw the rejection of claim 12. The invention described in claim 12 is characterized in that, referring to Figure 34 of the present application, in a case where a receiver extracts from a buffer, in which received frames are stored, a frame having a frame number determined on the basis of communication delay of that frame, when an actual delay of the frame differs from the expected delay of the frame and thus a receiver cannot extract the frame, the frame number of the frame to be extracted is adjusted.

It is therefore apparent that, as with claim 11, Bellec neither discloses, teaches or suggests the important feature of claim 12.

From the foregoing, it should be apparent that a combination of Fujita et al. and Bellec does not disclose, teach or suggest the important feature of the invention of claim 12.

Based on the above remarks, Applicants believe that all of the pending claims of the present application are allowable in their present form and respectfully requests the Examiner to issue a Notice of Allowance so indicating.

Respectfully submitted,



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